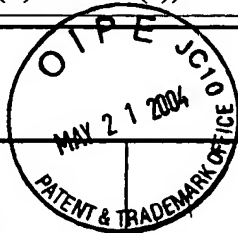


**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
10228US01

In Re Application Of: **Ramon F. Hegel**



Serial No.  
10/730,843

Filing Date  
12/09/2003

Examiner

Group Art Unit  
2651

Title:

**THERMALLY STABLE PERFLUOROPOLYETHER LUBRICANT FOR RECORDING MEDIA**

Address to:  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**37 CFR 1.97(b)**

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

**37 CFR 1.97(c)**

2. ☐ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:

☐ the statement specified in 37 CFR 1.97(e);

**OR**

☐ the fee set forth in 37 CFR 1.17(p).

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
10228US01

In Re Application: **Ramon F. Hegel**

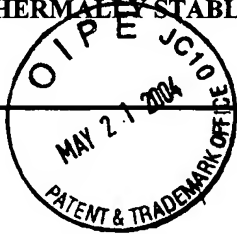
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**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☐ The Director is hereby authorized to charge and credit Deposit Account No. \_\_\_\_\_ as described below.
- ☐ Charge the amount of \_\_\_\_\_
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I certify that this document and fee is being deposited on 19 May 2004 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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\*This certificate may only be used if paying by deposit account.

Eric D. Levinson  
Signature

Dated: 5/19/04

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CC:



<b>INFORMATION DISCLOSURE CITATION</b>	Atty. Docket No.: 10228US01	Serial No.: 10/730,843
	Applicant(s): Ramon F. Hegel	
	Filing Date: 12/09/2003	Group: 2651

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
	4,882,197	11/1989	Matsudaira et al.			
	5,049,410	09/1991	Johary et al.			
	5,112,662	05/1992	Ng			
	5,143,787	09/1992	Frew et al.			
	5,527,479	06/1996	Nagataki et al.			
	6,001,479	12/1999	Yokosawa et al.			

**FOREIGN PATENT DOCUMENTS**

Document Number	Date	Country	Class	Sub-Class	Translation
					Yes No

**OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)**

	"Improved Surface Adhesion and Coverage of Perfluoropolyether Lubricants Following Far-UV Irradiation," Saperstein et al., American Chemical Society, Langmuir 1990, Vol. 6, 1522-1524
	"Frictional Properties of Novel Lubricants for Magnetic Thin Film Media," Kondo et al., IEEE Transactions on Magnetics, Vol. 26, No. 5, September 1990, pp. 2691-2693
	"Lubricant Performance in Magnetic Thin Film Disks with Carbon Overcoat—Part II: Durability," Streator et al.; Journal of Tribology, Transactions of the ASME, January 1991, Vol. 113, pp. 32-37
	"Effect of Relative Humidity on Friction Behavior of the Head/Disk Interface," Tian et al., IEEE Transactions on Magnetics, Vol. 28, No. 5, September 1992, pp. 2530-2532
	"Effect of Relative Humidity on Lubricant Performance," Merchant et al., IEEE Transactions on Magnetics, Vol. 29, No. 6, November 1993, pp. 3930-3932
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	"The Mechanism of Ultraviolet Bonding of Perfluoropolyether Lubricants," Vurens et al., IEEE Transactions of Magnetics, Vol. 29, No. 1, January 1993, pp. 282-285

**EXAMINER****Date Considered**

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b>	<b>Atty. Docket No.: 10228US01</b>	<b>Serial No.: 10/730,843</b>
	<b>Applicant(s): Ramon F. Hegel</b>	
	<b>Filing Date: 12/09/2003</b>	<b>Group: 2651</b>

**OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)**

		"Enhanced tribological performance of rigid disk by using chemically bonded lubricant," Lee et al., J. Vac. Sci. Technol. A, Vol. 11, No. 3, May/Jun 1993, pp. 711-714
		"Adsorption of Perfluoro-Polyethers on Carbon Surfaces," Yanagisawa, Presented at ASME/Style Tribology Conference in Lahaina, Hawaii, October 16-20, 1994, pp. 25-32
		"Lubricant Bonding Via Hydrogen Bond Network," Sano et al., IEEE Transactions on Magnetics, Vol. 30, No. 6, November 1994, pp. 4140-4142
		"Spreading characteristics of thin liquid films of perfluoropolyalkylethers on solid surfaces. Effects of chain-end functionality and humidity," Min et al., Tribology Letters 1 (1995), pp. 225-232
		"Dip-Coating of Ultra-Thin Liquid Lubricant and Its Control for Thin-Film Magnetic Hard Disks," Gao et al., IEEE Transactions on Magnetics, Vol. 31, No. 6, November 1995, pp. 2982-2984
		"Lubrication of modified perfluoropolyether on magnetic media," Kondo et al., Journal of Magnetism and Magnetic Materials 155 (1996), pp. 332-334
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		"Effect of double bonds on friction in the boundary lubrication of magnetic thin film media," Kondo, Wear 202 (1997), pp. 149-153
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		"Molecular Orientation of PFPE Lubricant Films and Its Quantification," Gao et al., IEEE Transactions on Magnetics, Vol. 33, No. 5, September 1997, pp. 3118-3120
		"Acoustic Emission Study of Lubricant Effect on Proximity Contact Recording," Liu et al., IEEE Transactions on Magnetics, Vol. 33, No. 5, September 1997, pp. 3160-3162
		"Surface and lubricant/overcoat interface properties of the rigid disks after corrosion," Huang et al., IEEE Transactions on Magnetics, Vol. 33, No. 5, September 1997, pp. 3154-3156

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